APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,995	02/26/2004	Junichi Hara	MEI-102	2682

				EXAMINER
24956	7590	08/18/2006		MYINT, DENNIS Y

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ART UNIT	PAPER NUMBER
2162	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/785,995	HARA ET AL.
	Examiner	Art Unit	
	Dennis Myint	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 August 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>19-34</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) <u>19-34</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This communication is responsive to Applicant's Amendment, filed on 04 August

2006.

2.   Claims 19-34 are pending in this application. Claims 19 and 27-29 are

independent claims. In the Amendment filed on 04 August 2006, claims 1-18 have been

cancelled. Claims 19-34 were newly added. This office action is made final.

Response to Arguments

3.   Applicant's arguments filed on 04 August 2006have been fully considered but

they are not persuasive.

Applicant argued that, *since although Dettinger discloses client computers each*

having a target database, there is no disclosure of one client computer accessing the

target database of a different client computer since each of the client computers

accesses the main database 107 and the server computer (Applicant's argument Page-

10*); accordingly, the data being accessed by the client computer is always stored in the*

same storage device and, as a result, the reference does not suggest the claimed

arrangements set forth by Applicants (Applicant's argument Page-10-11*); and The*

reference dose not disclose or suggest a computer system having access history

management device and a plurality of information resource management devices

coupled to a storage device and to a client computer as in the present invention

(Applicant's argument Page-10-11*)*.

In response, it is pointed out that Dettinger discloses client computers each having a target database and each of these target databases operate exactly the same way as the main database 107 of the instant application. In the same vein, it is pointed out that in the system of Dettinger, not only that the data being accessed by the client computer is stored in the same storage device but also at different storage devices depending the need for replication, use of data and frequency of usage of data. The Dettinger system is more comprehensive in placing data close to clients. In addition, it is pointed out that a plurality of client computers of the Dettinger system operate both as resource management devices and clients as in *Each of the client computers 120 includes a database management system 125$_1$.....125$_N$ (collectively referred to as the database management systems.*

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one would have been motivated to provide *redundancy to ensure that routing information can be provided upon demand* (Jones, Paragraph 0011).

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claim 19, 21-25, and 27-33 are rejected under 35 U.S.C. 102(e) as being

anticipated by Dettinger et al., (hereinafter "Dettinger") (U.S. Patent Application

Publication Number 2003/0093413).

As per claim 19, Dettinger is directed to a computer system and teaches the

limitations:

"an access history management device and a plurality of information resource

management devices coupled to a storage device and to a client computer" (Figure 1A:

Access Manager 109; Figure 1A, 114, 115_1, 115_2, 115_N, , and Paragraph 0021, i.e., *a*

network connection 114 ; Figure 1B: *Server 126_1, 126_2, and 126_N* and Paragraph 0021,

i.e., *a plurality of client computers;* and   Figure 1B: *Target Database 128_1, 128_2, and*

128_N; Note that said plurality of client computers operate both as resource management

devices and clients as in *Each of the client computers 120 includes a database*

management system 125_1.....125_N (collectively referred to as the database

management systems),

"the information resource management devices record access requests for obtaining data received from one of the client computers and the information resource management devices as access history information, when the information resource management devices send data to the client computers and the information resource management devices" (Figure 1A: *Server 106;* Figure 1A: *Access Manager 109;* Figure 1A: *Log 111*),

"the access history management device collects the access history information from the plurality of the information resource management devices" (Figure 1A: *Access Manager 109*, and Paragraph 0025, i.e. *To this end, various information (referred to herein as access manager metrics) is recorded by access manager 109 in a log 111;*), "determines if data is requested from one of the information resource management devices other than an information access management device which is coupled to one of the storage devices storing the requested data, and sends to an information access management device an instruction to copy the requested data" (Figure 1A: *Server 106;* Paragraph 0026-0027, i.e. *the replication schedule may be automatically generated by the access manager 109 according to the rules 110 and the metrics contained in the log 111* ; Figure 1A: *Storage 118* and Paragraph 0023 i.e., *such as fixed drives*).

As per claim 21, Dettinger teaches the limitation:

"wherein if the data of the instruction to copy is used by the client computer that is coupled directly to an information resource management device, the access history management device sends an instruction for data replication" (Paragraph 0026, i.e.,

frequency of use; and Paragraph 0026-0027, i.e. *the replication schedule may be*

automatically generated by the access manager 109 according to the rules 110 and the

metrics contained in the log 111).

As per claim 22, Dettinger teaches the limitation:

"wherein said access history management device collects the access history

information from the plurality of the information resource management devices at a

predetermined timing that includes timing at predetermined intervals set in advance"

(Figure 1A: *Access Manager 109;* Paragraph 0025, i.e., *To this end, various*

information (referred to herein as "access manager metrics) is recorded by access

manager 109 in a log 111; Paragraph 0027, i.e., *the replication schedule may be*

automatically generated by the access manager 109 according to the rules 110 and the

metrics contained in the log 111; and Paragraph 0027, i.e. *For example, a database*

administrator for the server 102 may desire to schedule replication for off-hours in order

to minimize network load).

As per claim 23, Dettinger teaches the limitation:

"wherein said access history management device collects the access history

information from the plurality of the information resource management devices at a

predetermined timing that includes an arbitrary timing depending on said information

resource management devices" (Figure 1A: *Access Manager 109;* Paragraph 0025,

i.e., *To this end, various information (referred to herein as "access manager metrics) is*

recorded by access manager 109 in a log 111; Paragraph 0027, i.e., *the replication*

schedule may be automatically generated by the access manager 109 according to the

rules 110 and the metrics contained in the log 111; and Paragraph 0027, i.e. *For*

example, a database administrator for the server 102 may desire to schedule replication

for off-hours in order to minimize network load).

As per claim 24, Dettinger teaches the limitations:

"said access history management device further collects user information for

identifying a user who has sent an access request for a plurality of information

resources as a part of said access history" (Paragraph 0025, i.e., *the access manager*

metrics include when a database request was issued, when the request was processed,

the frequency of requests from a particular client etc and Paragraph 0026, i.e., *user*

class (e.g., managers, architects, users with read only access etc.) and user class

tolerance of latency),

"said instruction sending unit further sends a change instruction to change

storage devices to store said plurality of information resources having been accessed

by a same user" (Paragraph 0027, i.e., *the replication schedule 113 dictates when*

replication takes place and Paragraph 0027, i.e., *replication* and Paragraph 0030-

0031).

As per claim 25, Dettinger teaches the limitation:

"wherein said change instruction sent by said instruction sending unit further includes information for identifying an information resource management device controlling said storage device having stored said one or more information resources before the change" (Paragraph 0033, i.e., *the server 102 notifies the client 120 of the replication and the replication schedule as 113, as indicated by step 234 and The client notification may be handled in any of a variety of methods. For example, in one embodiment the client 120 is notified by email. In another embodiment, the notification is provide to a user as an on-screen message upon attempting to access the primary database 104*).

Claim 27 is rejected on the same basis as claim 19.

Claim 28 is rejected on the same basis as claim 27.

As per claim 29, Dettinger id directed to an access history management device to be coupled to a plurality of resource management devices each of which is coupled to a storage device and to a client computer (Figure 1A: *Access Manager 109*; Figure 1A, 114, 115_1, 115_2, 115_N, , and Paragraph 0021, i.e., *a network connection 114* ; Figure 1B: *Server 126_1, 126_2, and 126_N* and Paragraph 0021, i.e., *a plurality of client computers;* and Figure 1B: *Target Database 128_1, 128_2, and 128_N;* Note that said plurality of client computers operate both as resource management devices and clients as in *Each of the client computers 120 includes a database management system 125_1.....125_N*

(collectively referred to as the database management systems) and teaches the the

limitations:

"the access history management device having a collecting unit that collects

access history information from the plurality of the information resource management

devices, the information resource management device recording an access request for

obtaining data received from one of a client computer and other information resource

management device as access history information, when the information resource

management device sends data to the one of the client computer and the other

information resource management device, a determining unit that determines if data is

requested from an information resource management device other than an information

access management device which is coupled to a storage device storing the requested

data, and a sending unit that sends to an information access management device an

instruction to copy the requested data" (Figure 1A: *Access Manager 109;* Paragraph

0025, i.e. *To this end, various information (referred to herein as access manager*

metrics) is recorded by access manager 109 in a log 111; Figure 1A: *Server 106;*

Paragraph 0026-0027, i.e. *the replication schedule may be automatically generated by*

the access manager 109 according to the rules 110 and the metrics contained in the log

111 ; Figure 1A: *Storage 118* and Paragraph 0023 i.e., *such as fixed drives;* Paragraph

0033, i.e., *the server 102 notifies the client 120 of the replication and the replication*

schedule as 113, as indicated by step 234 and The client notification may be handled

in any of a variety of methods).

Claim 30 is rejected on the same basis as claim 22.

Claim 31 is rejected on the same basis as claim 23.

Claim 32 is rejected on the same basis as claim 24.

Claim 33 is rejected on the same basis as claim 25.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

7.   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Dettinger in view of Pudipeddi et al., (hereinafter "Pudipeddi") (U.S. Patent Application

Publication Number 2002/0147881).

As per claim 20, Dettinger does not explicitly teach the limitation:

"wherein if the data of the instruction to copy is not used by the client computer

that is coupled directly to the information resource management device, the access

history management device sends an instruction for data migration" .

Pudipeddi teaches the limitation:

"wherein if the data of the instruction to copy is not used by the client computer

that is coupled directly to the information resource management device, the access

history management device sends an instruction for data migration"(Paragraph 0007,

i.e., *migrate all files that have not been used for six months*).

At the time the invention was made, it would have been obvious to a person of

ordinary skill in the art to add the feature of migrating data that has not been used, as

taught by Pudepeddi, to the system of Dettinger so that, in the resultant system, if the

data of the instruction to copy is not used by the client computer that is coupled directly

to the information resource management device, the access history management

device sends an instruction for data migration. One would have been motivated to do so

in order to so because migration of data that is not used is notoriously well known in the

art.

8.   Claim 26 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Dettinger in view of Jones et al., (hereinafter "Jones") (U.S. Patent Application

Publication Number 2002/0169794).

Referring to claim 26, Dettinger does not explicitly teach the limitation: "wherein

said storage device before the change has the shortest network distance from a storage

device after the change".

Jones teaches the limitation:

"wherein said storage device before the change has the shortest network

distance from a storage device after the change" (Paragraph 0010-0013). Jones

teaches redundancy systems and methods in communication systems, wherein Open

Shortest Path First Protocol (OSPF) is disclosed, which is used to provide shortest

network paths (shortest network distance) (Paragraph 0010-0013).

At the time the invention was made, it would have been obvious to a person of

ordinary skill in the art to combine the feature of using Open Shortest Path First Protocol

(OSPF) as taught by Jones et al. with the device for database replication as taught

Dettinger et al. so that, in the combined device, the storage device before the change

would have the shortest network distance from the storage device after the change.

One would have been motivated to do so simply to provide *redundancy to ensure that*

routing information can be provided upon demand (Jones, Paragraph 0011).

Claim 34 is rejected on the same basis as claim 26.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Contact Information

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Myint whose telephone number is (571) 272-5629. The examiner can normally be reached on 8:30 AM - 5:30 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dennis Myint   AU-2162

Cam U Truong

Cam U Truong
Primary Examiner